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(FILE 'HOME' ENTERED AT 16:54:51 ON 27 AUG 2002)

L1 FILE 'REGISTRY' ENTERED AT 16:55:40 ON 27 AUG 2002
4 S PHOSPHOFRUCTOKINASE/CN

FILE 'HCAPLUS' ENTERED AT 16:56:09 ON 27 AUG 2002

L2 FILE 'REGISTRY' ENTERED AT 16:56:26 ON 27 AUG 2002
SET SMARTSELECT ON
SEL L1 1- CHEM : 39 TERMS
SET SMARTSELECT OFF

L3 FILE 'HCAPLUS' ENTERED AT 16:56:27 ON 27 AUG 2002
7425 S L2
L4 3 S L3 (L) (CORYNEFORM OR CORYNEFORM BACTERIA OR (BACTERIA (L) C
L5 1 S L4 (L) (NUCLEIC ACID OR POLYNUCLEOTIDE OR NUCLEOTIDE OR DNA O

POWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS
 ON NUMBER: 2000:900776 HCAPLUS
 NT NUMBER: 134:67152
 E: L-lysine production with coryneform bacterium
 6-phosphofructokinase coding pfk gene
 INVENTOR(S): Sugimoto, Masakazu; Nakamura, Jun; Izui, Hiroshi;
 Kimura, Eiichiro; Ito, Hisao; Nakamatsu, Tsuyoshi;
 Kurahashi, Osamu
 PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077172	A1	20001221	WO 2000-JP3736	20000608
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
BR 2000011672	A	20020319	BR 2000-11672	20000608
EP 1195431	A1	20020410	EP 2000-935595	20000608
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

PRIORITY APPLN. INFO.: JP 1999-168377 A 19990615
 JP 1999-311111 A 19991101
 WO 2000-JP3736 W 20000608

AB A **coryneform** bacterium having an enhanced 6-**phosphofructokinase** activity in cell and being capable of producing L-lysine; a process for producing L-lysine in the above **coryneform** bacterium; and a **DNA** usable in enhancing the 6-**phosphofructokinase** activity, are disclosed. E. coli (pfkB) gene coding for 6-**phosphofructokinase** was expressed in Brevibacterium lactofermentum. Increased prodn. of L-lysine was obsd. in the transformants. A gene (pfk) coding for 6-**phosphofructokinase** was cloned from Brevibacterium lactofermentum.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 14 ibib ab 1-3

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:396523 HCAPLUS

DOCUMENT NUMBER: 135:2880

TITLE: The pfk gene of Corynebacterium glutamicum and its use in increasing yields of lysine in fermentation

INVENTOR(S): Mockel, Bettina; Pfefferle, Walter

PATENT ASSIGNEE(S): Degussa A.-G., Germany

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1103613	A1	20010530	EP 2000-125528	20001122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19956131	A1	20010531	DE 1999-19956131	19991123
JP 2001186895	A2	20010710	JP 2000-354308	20001121
CN 1297055	A	20010530	CN 2000-132502	20001123
BR 2000005543	A	20010807	BR 2000-5543	20001123

PRIORITY APPLN. INFO.: DE 1999-19956131 A 19991123

AB The pfk gene of Corynebacterium glutamicum ATCC13032 encoding a **phosphofructokinase** is cloned and characterized for use in increasing the efficiency of fermn. of lysine by **coryneform bacteria**. The gene was identified by querying a C. glutamicum sequence database for homologs of known pfk genes.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:393183 HCAPLUS

DOCUMENT NUMBER: 135:16690

TITLE: The pfkA gene of Corynebacterium glutamicum and its use in increasing yields of lysine in fermentation

INVENTOR(S): Moeckel, Bettina; Pfefferle, Walter

PATENT ASSIGNEE(S): Degussa-Huels A.-G., Germany

SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10011922	A1	20010531	DE 2000-10011922	20000311
EP 1106622	A2	20010613	EP 2000-122746	20001019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1297054	A	20010530	CN 2000-132480	20001121
JP 2001186896	A2	20010710	JP 2000-354681	20001121
BR 2000005531	A	20010807	BR 2000-5531	20001123

PRIORITY APPLN. INFO.: DE 1999-19956133 A1 19991123

DE 2000-10011922 A 20000311

AB The pfkA gene of Corynebacterium glutamicum ATCC13032 encoding a **phosphofructokinase** is cloned and characterized for use in increasing the efficiency of fermn. of lysine by **coryneform bacteria**. The gene was identified by querying a C. glutamicum sequence database for homologs of known pfkA genes.

L4 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:900776 HCAPLUS

DOCUMENT NUMBER: 134:67152
 TITLE: L-lysine production with **coryneform**
 bacterium **6-phosphofructokinase**
 coding pfk gene
 INVENTOR(S): Sugimoto, Masakazu; Nakamura, Jun; Izui, Hiroshi;
 Kimura, Eiichiro; Ito, Hisao; Nakamatsu, Tsuyoshi;
 Kurahashi, Osamu
 PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
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 CODEN: PIXXD2
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 FAMILY ACC. NUM. COUNT: 1
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W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
BR 2000011672	A	20020319	BR 2000-11672	20000608
EP 1195431	A1	20020410	EP 2000-935595	20000608
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

PRIORITY APPLN. INFO.: JP 1999-168377 A 19990615
 JP 1999-311111 A 19991101
 WO 2000-JP3736 W 20000608

AB A **coryneform** bacterium having an enhanced **6-phosphofructokinase** activity in cell and being capable of producing L-lysine; a process for producing L-lysine in the above **coryneform** bacterium; and a DNA usable in enhancing the **6-phosphofructokinase** activity, are disclosed. E. coli (pfkB) gene coding for **6-phosphofructokinase** was expressed in Brevibacterium lactofermentum. Increased prodn. of L-lysine was obsd. in the transformants. A gene (pfk) coding for **6-phosphofructokinase** was cloned from Brevibacterium lactofermentum.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

WEST Search History

DATE: Tuesday, August 27, 2002

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB; PLUR=YES; OP=ADJ

L11	L10 and l9	5	L11
L10	l6 or l5 or l4 or l3 or l2 or l1	15850	L10
L9	L8 and (nucleic acid or polynucleotide or nucleotide or DNA or cDNA)	20	L9
L8	l7 and (phosphofructokinase or phosphofructose kinase or fructose phosphate kinase)	20	L8
L7	coryneform or coryneform bacteria	444	L7
L6	((((536/23.2)!..CCLS.))	4406	L6
L5	((((435/320.1)!..CCLS.))	12473	L5
L4	((((435/252.32)!..CCLS.))	116	L4
L3	((((435/252.3)!..CCLS.))	5873	L3
L2	((((435/194)!..CCLS.))	922	L2
L1	((((435/183)!..CCLS.)	1647	L1

END OF SEARCH HISTORY

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 5 of 5 returned.**☐ 1. Document ID: US 20020076770 A1

L11: Entry 1 of 5

File: PGPB

Jun 20, 2002

PGPUB-DOCUMENT-NUMBER: 20020076770

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020076770 A1

TITLE: Process for the fermentative preparation of D-pantothenic acid using Coryneform bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

[KWC](#)☐ 2. Document ID: US 20020068335 A1

L11: Entry 2 of 5

File: PGPB

Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068335

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020068335 A1

TITLE: Processes for preparing D-pantothenic acid using coryneform bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

[KWC](#)☐ 3. Document ID: US 20020004231 A1

L11: Entry 3 of 5

File: PGPB

Jan 10, 2002

PGPUB-DOCUMENT-NUMBER: 20020004231

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020004231 A1

TITLE: L-glutamic acid-producing bacterium and method for producing L-glutamic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

[KWC](#)

☐ 4. Document ID: US 5977331 A

L11: Entry 4 of 5

File: USPT

Nov 2, 1999

US-PAT-NO: 5977331

DOCUMENT-IDENTIFIER: US 5977331 A

TITLE: .alpha.-Ketoglutarate dehydrogenase gene

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw. Desc	Image								

KMC

☐ 5. Document ID: US 5846790 A

L11: Entry 5 of 5

File: USPT

Dec 8, 1998

US-PAT-NO: 5846790

DOCUMENT-IDENTIFIER: US 5846790 A

TITLE: Methods of producing L-lysine and L-glutamic acid by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw. Desc	Image								

KMC

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Terms	Documents
L10 and I9	5

Display Format:

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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 10 of 20 returned.**☐ 1. Document ID: US 20020076770 A1

L9: Entry 1 of 20

File: PGPB

Jun 20, 2002

PGPUB-DOCUMENT-NUMBER: 20020076770

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020076770 A1

TITLE: Process for the fermentative preparation of D-pantothenic acid using Coryneform bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 2. Document ID: US 20020068335 A1

L9: Entry 2 of 20

File: PGPB

Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068335

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020068335 A1

TITLE: Processes for preparing D-pantothenic acid using coryneform bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 3. Document ID: US 20020004231 A1

L9: Entry 3 of 20

File: PGPB

Jan 10, 2002

PGPUB-DOCUMENT-NUMBER: 20020004231

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020004231 A1

TITLE: L-glutamic acid-producing bacterium and method for producing L-glutamic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 4. Document ID: US 20010019836 A1

L9: Entry 4 of 20

File: PGPB

Sep 6, 2001

PGPUB-DOCUMENT-NUMBER: 20010019836

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010019836 A1

TITLE: L-glutamic acid-producing bacterium and method for producing
L-glutamic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 5. Document ID: US 6331419 B1

L9: Entry 5 of 20

File: USPT

Dec 18, 2001

US-PAT-NO: 6331419

DOCUMENT-IDENTIFIER: US 6331419 B1

TITLE: L-glutamic acid-producing bacterium and method for producing
L-glutamic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 6. Document ID: US 6197559 B1

L9: Entry 6 of 20

File: USPT

Mar 6, 2001

US-PAT-NO: 6197559

DOCUMENT-IDENTIFIER: US 6197559 B1

TITLE: L-glutamic acid-producing bacterium and method for producing
L-glutamic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 7. Document ID: US 5977331 A

L9: Entry 7 of 20

File: USPT

Nov 2, 1999

US-PAT-NO: 5977331

DOCUMENT-IDENTIFIER: US 5977331 A

TITLE: .alpha.-Ketoglutarate dehydrogenase gene

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

RMC

☐ 8. Document ID: US 5955261 A

L9: Entry 8 of 20

File: USPT

Sep 21, 1999

US-PAT-NO: 5955261

DOCUMENT-IDENTIFIER: US 5955261 A

TITLE: Method for detecting the presence of group-specific viral mRNA in a sample

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

RMC

☐ 9. Document ID: US 5932416 A

L9: Entry 9 of 20

File: USPT

Aug 3, 1999

US-PAT-NO: 5932416

DOCUMENT-IDENTIFIER: US 5932416 A

TITLE: Method for detecting the presence of RNA belonging to an organ or tissue cell-type

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

RMC

☐ 10. Document ID: US 5928864 A

L9: Entry 10 of 20

File: USPT

Jul 27, 1999

US-PAT-NO: 5928864

DOCUMENT-IDENTIFIER: US 5928864 A

TITLE: Method for determining the presence of organisms in a sample by detecting transfer nucleic acid

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

RMC

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Terms	Documents
L8 and (nucleic acid or polynucleotide or nucleotide or DNA or cDNA)	20

Display Format:

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L9: Entry 11 of 20

File: USPT

Dec 8, 1998

US-PAT-NO: 5846790

DOCUMENT-IDENTIFIER: US 5846790 A

TITLE: Methods of producing L-lysine and L-glutamic acid by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 12. Document ID: US 5738989 A

L9: Entry 12 of 20

File: USPT

Apr 14, 1998

US-PAT-NO: 5738989

DOCUMENT-IDENTIFIER: US 5738989 A

TITLE: Method for determining the sensitivity of microorganisms to anti microbial agents using ribosomal nucleic acid hybridization

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 13. Document ID: US 5738988 A

L9: Entry 13 of 20

File: USPT

Apr 14, 1998

US-PAT-NO: 5738988

DOCUMENT-IDENTIFIER: US 5738988 A

TITLE: Method for detecting antimicrobial agents or unknown organisms in a sample using ribosomal probe hybridization

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 14. Document ID: US 5723597 A

L9: Entry 14 of 20

File: USPT

Mar 3, 1998

US-PAT-NO: 5723597

DOCUMENT-IDENTIFIER: US 5723597 A

TITLE: Ribosomal nucleic acid probes for detecting organisms or groups of organisms

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 15. Document ID: US 5714324 A

L9: Entry 15 of 20

File: USPT

Feb 3, 1998

US-PAT-NO: 5714324

DOCUMENT-IDENTIFIER: US 5714324 A

TITLE: Methods for producing hybridization probes specific for rRNA subunit subsequences

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 16. Document ID: US 5688645 A

L9: Entry 16 of 20

File: USPT

Nov 18, 1997

US-PAT-NO: 5688645

DOCUMENT-IDENTIFIER: US 5688645 A

TITLE: Method for detecting, identifying, and quantitating non-viral organisms

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 17. Document ID: US 5641632 A

L9: Entry 17 of 20

File: USPT

Jun 24, 1997

US-PAT-NO: 5641632

DOCUMENT-IDENTIFIER: US 5641632 A

TITLE: Method for preparing rRNA for hybridization with a probe

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 18. Document ID: US 5641631 A

L9: Entry 18 of 20

File: USPT

Jun 24, 1997

US-PAT-NO: 5641631

DOCUMENT-IDENTIFIER: US 5641631 A

TITLE: Method for detecting, identifying, and quantitating organisms and viruses

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 19. Document ID: US 5601984 A

L9: Entry 19 of 20

File: USPT

Feb 11, 1997

US-PAT-NO: 5601984

DOCUMENT-IDENTIFIER: US 5601984 A

TITLE: Method for detecting, the presense or amount of a taxonomic group of organisms using specific R-RNA subsequences as probes

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 20. Document ID: US 5567587 A

L9: Entry 20 of 20

File: USPT

Oct 22, 1996

US-PAT-NO: 5567587

DOCUMENT-IDENTIFIER: US 5567587 A

TITLE: Method for detecting, the presence and amount of prokaryotic organisms using specific rRNA subsequences as probes

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

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Terms	Documents
L8 and (nucleic acid or polynucleotide or nucleotide or DNA or cDNA)	20

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